As shown in Fig. 15, an exemplary embodiment of the present invention proves the following benefits: When the process of the previous mode ends at S403, the MODEM 11 controls a status-transition and also the next mode is set at S404 by the instruction of selecting the next mode, thereby guaranteeing the timing for the mode-switch resulting in efficient communication. Further, the MODEM can monitor the timing instead of the facsimile controller 12, thereby reducing the load on the facsimile controller 12.

Various mode-switches by the MODEM are explained. Fig. 16 shows that the MODEM 11 has several operational-modes and another operational mode having a sequence which controls the several operational-modes. Fig. 16 is a flow-chart of a facsimile sequence using the half-duplex V.34 Standard based on the ITU. Phase 1 (S431), Phase 2 (S432), Phase 3 (S433), the controlling channel (S434), and the main channel (S435) are the modes in the sequence. The MODEM 11 has the half-duplex mode of the V.34 Standard into which these modes are combined.

A MODEM mode is set as the V.34 half-duplex mode before the operation is started. Phase 1 of Step S431 starts, where an adjustment is made so that the data based on the V.34 Standard can be transmitted/received. When Step S431 is complete, the MODEM 11 transfers to Phase 2 of Step S432 to determine the line's characteristics and the symbol speed of the MODEM. At Step S433, the MODEM is at Phase 3 where equalizer-training (set a coefficient in order to determine distortion components) to the MODEM 11 is provided. After Phase 3, the MODEM is at Step S434, the control channel, where the data speed is determined and terminal information of the T.30 Standard is exchanged.

When the control channel ends, the MODEM is at Step S435, the main channel, where the image data of the facsimile is transferred. When the main channel ends, the MODEM enters Step S436 to determine what to do next. Based on an instruction from facsimile controller 12, the MODEM will either proceed to 1) Step S437, where the control channel resets the data-speed, or 2) to Step S438, where the control channel does not reset the data-speed. Facsimile controller 12 gives this instruction to the MODEM 11 to determine the next step, S437 or S438, before completing the main channel in Step S435.